

### REMARKS

Claims remaining in the present patent application are numbered 1-49. No amendments to the claims have been made in the present response. The rejections and comments of the Examiner set forth in the Office Action dated April 21, 2004 have been carefully considered by the Applicants. Applicants respectfully request the Examiner to consider and allow the remaining claims.

### 35 U.S.C. §103 Rejection

The present Office Action rejected Claims 1-49 under 35 U.S.C. 103(a) as being unpatentable over Miller et al. ("On-the-Fly Texture Computation for Real-time Surface Shading", April 1998, IEEE Computer Graphics and applications, pp. 44-58) in view of Neyret et al. (SIGGRAPH 99, Los Angeles, CA USA, pp. 235-242). Applicants have reviewed the above cited references and respectfully submit that the present invention as recited in Claims 1-49, is neither anticipated nor rendered obvious by the Miller et al. reference taken alone or in combination with the Neyret et al. reference.

### Independent Claims 1 and 23

Regarding independent Claims 1 and 23, embodiments of the presently claimed invention disclose methods rendering an image, as presently claimed. In particular, independent Claims 1 and 23 of the present invention recite, in part:

generating a parametric texture map of a subject that contains at least one varying parameter in a set of varying parameters for an equation that defines variation in pixel color,

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without modeling geometric configurations of said subject, wherein each varying parameter in said equation corresponds to a varying condition.  
(Emphasis Added)

The claimed embodiments of Claim 1 and Claim 23 pertain to methods of rendering images. The present invention as claimed generates a parametric texture map of a subject without modeling geometric configurations of the subject. In particular, a parametric texture map of a subject is generated in an equation that defines variation in pixel color, wherein the equation includes a set of varying parameters that correspond to varying conditions.

Applicants respectfully note that the Miller et al. reference taken alone or in combination with the Neyret et al. reference do not teach nor suggest the present invention as claimed in independent Claims 1 and 23 in which a parametric texture map is generated without modeling geometric configurations of the subject. In particular, Applicants agree that the Miller et al. reference does not teach the generating a parametric texture map of a subject "without modeling geometric configurations of said subject, and wherein each varying parameter in said equation corresponds to a varying condition."

However, Applicants respectfully disagree that the Neyret et al. reference teaches "in parametric texture mapping of a subject without modeling geometric configurations of said subject, and each parameter is

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assigned to vary correspondently with a condition," as stated on page 3 of the present Office Action.

Specifically, the Neyret et al. reference teaches away from the invention as presently claimed in independent Claims 1 and 23. That is, the Neyret et al. reference does teach the geometric modeling of the surface of an object, which is in contrast to the claimed invention as recited in independent Claims 1 and 23. For instance, the Neyret et al. reference states that the first step consists of building a triangular tiling of the surface, as follows:

Consequently, the first step of our algorithm consists of building a *triangular tiling* of the surface, computed at a user-defined scale. (See Neyret et al. reference, page 237, col. 1, sec. 2.1, 2<sup>nd</sup> para., lines 40-43 in approximation).

As such, the Neyret et al. reference does teach the geometric modeling of the surface of the object, which is contrary to the present invention. That is, the polygonal (triangular) tiling of the surface of the object is first created, and is then used for mapping textures in the Neyret et al. reference. This is in direct contrast to the present invention, as claimed in independent Claims 1 and 23, which discloses the generation of a parametric texture map of a subject without modeling geometric configurations of the subject.

Thus, Applicants respectfully submit that the Miller et al. reference taken alone or in combination with the

Neyret et al. reference does not show nor suggest the method of the present invention as recited in independent Claims 1 and 23, since both references do not teach "without modeling geometric configurations of the subject." Accordingly, Applicants respectfully submit that independent Claim 1 overcomes the cited reference, and as such Claims 2-11 which depend on independent Claim 1 are also in a condition for allowance as being dependent on an allowable base claim. Further, Applicants respectfully submit that independent Claim 23, as amended, overcomes the cited reference, and as such Claims 24-33 which depend on independent Claim 23 are also in a condition for allowance as being dependent on an allowable base claim.

Independent Claims 12, 34, and 42

Regarding independent Claims 12, 34, and 42, embodiments of the claimed invention disclose methods and systems of rendering images and systems for rendering the same. In particular, each of the methods and systems in the independent Claims 12, 34, and 42 generate a parametric texture map of a subject without modeling geometric configurations of the subject. As such, the arguments set forth with regards to independent Claims 1 and 23 illustrating that the Miller et al. reference taken alone or in combination with the Neyret et al. reference teaches away from the present invention is equally applicable to independent Claims 12, 34, and 42.

Thus, Applicants respectfully submit that the Miller et al. reference in combination with the Neyret et al. reference do not show nor suggest the method of the present invention as recited in independent Claims 12, 34, and 42. Accordingly, Applicants respectfully submit that independent Claim 12 overcomes the Examiner's basis for rejection, and as such Claims 13-22 which depend on independent Claim 12 are also in a condition for allowance as being dependent on an allowable base claim. Also, Applicants respectfully submit that independent Claim 34 overcomes the Examiner's basis for rejection, and as such Claims 35-41 which depend on independent Claim 34 are also in a condition for allowance as being dependent on an allowable base claim. Additionally, Applicants respectfully submit that independent Claim 42 overcomes the Examiner's basis for rejection, and as such Claims 43-49 which depend on independent Claim 42 are also in a condition for allowance as being dependent on an allowable base claim

CONCLUSION

In light of the facts and arguments presented herein, Applicants respectfully request reconsideration of the rejected Claims.


Based on the arguments presented above, Applicants respectfully assert that Claims 1-49 overcome the rejections of record. Therefore, Applicants respectfully solicit allowance of these Claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,  
Wagner, Murabito & Hao LLP

Date: \_\_\_\_\_

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